

## PROGRAMMABLE VERTICAL FILTER FOR VIDEO ENCODING

### Abstract of the Disclosure

A technique is provided for programmably vertically filtering pixel values of frames of a sequence of video frames. The technique includes separating luminance components and chrominance components of the pixel values within a vertical filter buffer, then vertically filtering luminance components of the pixel values using programmable luminance filter coefficients, and vertically filtering chrominance components of the pixel values using programmable chrominance filter coefficients. The filtered luminance component data and filtered chrominance component data is subsequently merged onto a single luminance/chrominance bus for further filtering and/or encoding. The luminance and chrominance filter coefficients are programmable and may be changed dynamically and repeatedly at picture boundaries. In one embodiment, the programmable vertical filter includes a four tap luminance component filter and a five tap chrominance component filter.